

SEQUENCE LISTING

<110> The Genetics Company

<120> Growth Regulating Proteins

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<170> PatentIn version 3.1

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<211> 2096

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Arg Ser Leu Glu Asn Tyr Thr Phe Thr Asp Glu Gly Gly Lys Asp Gln
115 120 125

Gly Ile Asn Val Arg His Lys Val Arg Glu Leu Ile Asp Phe Ile Gln
130 135 140

Asp Asp Asp Arg Leu Arg Glu Glu Arg Lys Lys Ala Lys Lys Asn Lys
145 150 155 160

Asp Lys Tyr Ile Gly Met Ser Ser Asp Ala Met Gly Met Arg Ser Gly
165 170 175

Gly Tyr Ser Gly Tyr Ser Gly Gly Ser Gly Gly Gly Gly Gly Gly Ser
180 185 190

Gly Gly Tyr Asn Asp Gly Asp Tyr Arg Ser Ser Arg Gly Asp Asn Trp
195 200 205

Tyr Ser Asp Lys Ser Ala Asp Lys Asp Arg Tyr Glu Asp Asp Asp Thr
210 215 220

His Tyr Asp Gly Glu Arg Glu Gly Ser Asp Ser Asp Ser Pro Ser Pro
225 230 235 240

Arg Arg Asn Tyr Arg Tyr Asn Asp Arg Ala Ser Pro Ala Glu Val Ala
245 250 255

Ser Glu Ala Lys Pro Ser Ser Leu Asn Met Asn Ile Arg Ser Lys Thr
260 265 270

Val Ser Ser Pro Val Ser Lys Gln Pro Thr Ser Thr Ala Ser Ala Lys
275 280 285

Pro Ala Leu Ser Gln Lys Lys Ile Asp Leu Gly Ala Ala Ala Asn Phe
290 295 300

Gly Lys Pro Ala Pro Gly Gly Ala Ala Gly Ile His Ser Pro Thr His
305 310 315 320

Arg Asp Thr Pro Thr Ser Val Asp Leu Met Gly Gly Ala Ser Pro Ser
325 330 335

Pro Ser Thr Ser Lys Ala Asn Asn Asn Thr Gln Ser Asn Asn Asn Asp
340 345 350

Leu Leu Asp Asp Leu Phe Lys Thr Cys Ser Pro Pro Pro Gly Gln Glu
355 360 365

Lys Thr Leu Asn Ser Ala Ala Val Ile Val Asp Asp Asp Asp Asp Phe
370 375 380

Asn Pro Arg Ala Ser Asp Ala Ser Gln Gln Glu Phe Gly Asp Phe Ala
385 390 395 400

Ser Ala Phe Gly Gln Pro Ser Ala Gly Ser Thr Ile Ser Glu Pro Pro
405 410 415

Ser Thr Gly Leu Val Pro Ala Ala Asn Asp Glu Phe Ala Asp Phe Ala
420 425 430

Ala Phe Gln Gly Ser Thr Thr Ser Thr Ser Ala Leu Asp Gly Asn Leu
435 440 445

Leu Lys Thr Ala Thr Pro Ala Asn Asp Ser Phe Asp Leu Phe Asn Ser
450 455 460

Ala Pro Thr Ser Thr Ala Ala Ala Thr Thr Ala Thr Asp Leu Leu Ala
465 470 475 480

Gly Leu Gly Asp Leu Ser Ile His Gln Ser Met Pro Met Asp Asn Met

485

490

495

Met Pro Pro Ile Pro Ala Val Thr Gly Asn Asn Leu Leu Gln Pro Met
500 505 510

Ser Val Thr Asn Asn Asn Asn Asn Thr Asn Gly Gly Ala Val Pro Ala
515 520 525

Ala Ala Ser Val Gln Ser Thr Ala Val Gly Ala Thr Trp Ser Gly Asp
530 535 540

Leu Lys Gly Gly Lys Met Asn Ile Asp Leu Asp Asn Leu Leu Met Ser
545 550 555 560

Lys Ser Gly Lys Pro Ser Ala Pro Ala Pro Ser Met Asn Ala Leu Lys
565 570 575

Thr Asn Ser Pro Ala Lys Ala Pro Leu Asn Val Gln Thr Gly Gly Gly
580 585 590

Phe Pro Gly Leu Ser Pro Met Thr Ser Pro Asn Ile Phe Gly Ala Pro
595 600 605

Ala Pro Gln Gln Ser Ile Pro Gln Asn Gln Ser Ala Phe Ala Asn Phe
610 615 620

Gly Ala Phe Gln Gln Gln Gln Asn His Ser Asn Asn Asn Asn Asn
625 630 635 640

Ser Ser Ser Ala Phe Asp Leu Phe Gln
645

<210> 5

<211> 643

<212> PRT

<213> Homo sapiens

<400> 5

Met Leu Asn Met Trp Lys Val Arg Glu Leu Val Asp Lys Ala Thr Asn
1 5 10 15

Val Val Met Asn Tyr Ser Glu Ile Glu Ser Lys Val Arg Glu Ala Thr
20 25 30

Asn Asp Asp Pro Trp Gly Pro Ser Gly Gln Leu Met Gly Glu Ile Ala
35 40 45

Lys Ala Thr Phe Met Tyr Glu Gln Phe Pro Glu Leu Met Asn Met Leu
50 55 60

Trp Ser Arg Met Leu Lys Asp Asn Lys Lys Asn Trp Arg Arg Val Tyr
65 70 75 80

Lys Ser Leu Leu Leu Leu Ala Tyr Leu Ile Arg Asn Gly Ser Glu Arg
85 90 95

Val Val Thr Ser Ala Arg Glu His Ile Tyr Asp Leu Arg Ser Leu Glu
100 105 110

Asn Tyr His Phe Val Asp Glu His Gly Lys Asp Gln Gly Ile Asn Ile
115 120 125

Arg Gln Lys Val Lys Glu Leu Val Glu Phe Ala Gln Asp Asp Asp Arg
130 135 140

Leu Arg Glu Glu Arg Lys Lys Ala Lys Lys Asn Lys Asp Lys Tyr Val
145 150 155 160

Gly Val Ser Ser Asp Ser Val Gly Gly Phe Arg Tyr Ser Glu Arg Tyr
165 170 175

Asp Pro Glu Pro Lys Ser Lys Trp Asp Glu Glu Trp Asp Lys Asn Lys
180 185 190

Ser Ala Phe Pro Phe Ser Asp Lys Leu Gly Glu Leu Ser Asp Lys Ile
195 200 205

Gly Ser Thr Ile Asp Asp Thr Ile Ser Lys Phe Arg Arg Lys Asp Arg
210 215 220

Glu Asp Ser Pro Glu Arg Cys Ser Asp Ser Asp Glu Glu Lys Lys Ala
225 230 235 240

Arg Arg Gly Arg Ser Pro Lys Gly Glu Phe Lys Asp Glu Glu Glu Thr
245 250 255

Val Thr Thr Lys His Ile His Ile Thr Gln Ala Thr Glu Thr Thr Thr
260 265 270

Thr Arg His Lys Arg Thr Ala Asn Pro Ser Lys Thr Ile Asp Leu Gly
275 280 285

Ala Ala Ala His Tyr Thr Gly Asp Lys Ala Ser Pro Asp Gln Asn Ala
290 295 300

Ser Thr His Thr Pro Gln Ser Ser Val Lys Thr Ser Val Pro Ser Ser
305 310 315 320

Lys Ser Ser Gly Asp Leu Val Asp Leu Phe Asp Gly Thr Ser Gln Ser
325 330 335

Thr Gly Gly Ser Ala Asp Leu Phe Gly Gly Phe Ala Asp Phe Gly Ser
340 345 350

Ala Ala Ala Ser Gly Ser Phe Pro Ser Gln Val Thr Ala Thr Ser Gly
355 360 365

Asn Gly Asp Phe Gly Asp Trp Ser Ala Phe Asn Gln Ala Pro Ser Gly
370 375 380

Pro Val Ala Ser Ser Gly Glu Phe Phe Gly Ser Ala Ser Gln Pro Ala
385 390 395 400

Val Glu Leu Val Ser Gly Ser Gln Ser Ala Leu Gly Pro Pro Pro Ala
405 410 415

Ala Ser Asn Ser Ser Asp Leu Phe Asp Leu Met Gly Ser Ser Gln Ala
420 425 430

Thr Met Thr Ser Ser Gln Ser Met Asn Phe Ser Met Met Ser Thr Asn
435 440 445

Thr Val Gly Leu Gly Leu Pro Met Ser Arg Ser Gln Pro Leu Gln Asn
450 455 460

Val Ser Thr Val Leu Gln Lys Pro Asn Pro Leu Tyr Asn Gln Asn Thr
465 470 475 480

Asp Met Val Gln Lys Ser Val Ser Lys Thr Leu Pro Ser Thr Trp Ser
485 490 495

Asp Pro Ser Val Asn Ile Ser Leu Asp Asn Leu Leu Pro Gly Met Gln
500 505 510

Pro Ser Lys Pro Gln Gln Pro Ser Leu Asn Thr Met Ile Gln Gln Gln
515 520 525

Asn Met Gln Gln Pro Met Asn Val Met Thr Gln Ser Phe Gly Ala Val
530 535 540

Asn Leu Ser Ser Pro Ser Asn Met Leu Pro Val Arg Pro Gln Thr Asn
545 550 555 560

Ala Leu Ile Gly Gly Pro Met Pro Met Ser Met Pro Asn Val Met Thr
565 570 575

Gly Thr Met Gly Met Ala Pro Leu Gly Asn Thr Pro Met Met Asn Gln
580 585 590

Ser Met Met Gly Met Asn Met Asn Ile Gly Met Ser Ala Ala Gly Met
595 600 605

Gly Leu Thr Gly Thr Met Gly Met Gly Met Pro Asn Ile Ala Met Thr
610 615 620

Ser Gly Thr Val Gln Pro Lys Gln Asp Ala Phe Ala Asn Phe Ala Asn
625 630 635 640

Phe Ser Lys